E & A

The
Florida Buggist

Official Organ of the Florida Entomological Society

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A DAY WITH THE WILD PLUMS

(Feb. 22, 1919)

For perfect bliss give me a day like this, clear, bright, and warm, but not too hot, a thicket full of bloom and insects, a net, and a holiday. The sun's rays fall cheerfully on coatless back and hatless head; the scent of the blossoms thrills the nostrils and the busy hum of insects the ears. Such a day and place will quickly drown all care and worry, the blues, a hard cold, and almost an appetite for dinner if one has to forsake the thicket to get it. For this will be our last chance, as the trees are fast dropping their petals. A few more days and the humming host will have dispersed to other hunting grounds hardly to meet again in such a notable gathering until the chinquepin blooms, in late April or May. For the wild plum is a democratic blossom, its nectar and pollen are open to all comers from the lordly Yellow Swallow-tail *(Papilio turnus)* or the even larger butterfly of the Orange Dog *(Papilio cresphontes)* to the minutest fly or thrips. Not so all blooms. Look, for instance, at that Red Bud, *Cercis Canadensis*. An exclusive aristocrat, its sweets are locked up from the common herd in a corolla of rigid petals which only the stronger bees (honey- and bumble-bees) can force apart. The charming Yellow Jasmin is only a little less aristocratic. Its voluptuously scented vase is accessible to only the long sucking tubes of some of the larger butterflies. I note only the Yellow Swallow-tail and the black and white *Papilio ajax*. Poor pickings for an entomologist at either of these plants, so let us back to the Wild Plum.

Most conspicuous among the busy throng are the butterflies. The tree is the Mecca for most of those that have emerged to

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date. The Swallow-tails *(Papilios)* have just commenced to appear. Besides Turnus and the Orange Dog, Ajax is here, the Green-clouded Spice Bush *(P. troilus)* and the blue Pipe Vine *(P. philenor)*. Almost as large as the Swallow-tails but tailless, the Red-Spotted Purple *(Basilarchia astynax)*. Smaller but still of good size is the variegated Thistle Butterfly *(Pyrameis cardui)* and the dark brown Buckeye *(Junonia coenia)* with six peacock eyes, a quarrelsome chap, ever ready to engage in combat with a butterfly twice his size. Of the smaller species, an inch or so across the wings, the pretty little Hair Streaks are common but not conspicuous. They get their name from the delicate hair-like "tail" on the hind wings. They are quiet fellows and stick closely to the blossoms. The largest is *Uranotes melinus*. Its larva is the Cotton Square Borer which also mines loquat buds. *Atlides halesus* is about as large and has perhaps the most beautiful irridescent blue wings of them all.

Darting restlessly from bloom to bloom are several species of skippers: *Thanaos horatius, Lerodea maculata, Thanaos petronius, Catia drury.*

But tastes differ, even in butterflies. Not all of them care for the wild plum. The Long-tailed Skipper, the adult of the Bean Leaf-roller, *Eudamus proteus,* stops for a moment but soon flies on to the few belated blossoms of the catnip over which he lingers long. Like the catnip, this butterfly is a relic of last year's vintage, a straggler which has lived thru the winter rather than a spring addition to our fauna. The Cloudless Sulphur *(Catopsilia ebule)* too is restlessly roaming the woods today but stops at the plum for but a moment. The Monarch *(Anosia plexippus)* and the orange Nicippe pay but little more attention to the blossoms.

There are a few day flying moths about the blooms. The pretty pink and white Bella Moth *(Utethesia bella)* is here in some numbers considering the time of the year; they too are creatures of the fall.

But the catch of the day is a pair of *Psychomorpha epimenis*. It is a rare moth here. I have never seen it before and it has been reported but once from the state. At first glance, as I saw them in the top of the tree, I mistook them for an old friend, the Orange Tip Butterfly, whose acquaintance I first made in a warm south-facing canon in the Sandia Mountains of New Mexico, to visit which I traveled fifteen horizontal miles and half a vertical one. But my reward was ample. In spite of the great

difference in the setting, the clean-cut towering Rockies with their exhilarating air in place of the flat landscape draped with Spanish moss and enveloped in a dreamy haze, the insect visitors were much the same, at least as far as orders and families. The calendar said April instead of February, but, as in my garden today, the peach trees were pink with bloom. But they grew in irrigated orchards with a vivid green carpet of alfalfa.

But not all the lepidoptera here are adult visitors. Some are "at home" here, feeding on the leaves. My net gathers several unknown species of "measuring worms", Geometrid larvae; but most conspicuous are the Tent Caterpillars, *Malacosoma americana.* The first warm February days that enticed forth from their winter buds the first tender leaves hatched out these caterpillars. Very quickly they will complete their growth, pupate, and issue as moths to lay their eggs in a bunch around the twigs. Here, protected from rain by a heavy coating of varnish, they will remain all summer and winter. Why only a single brood a season, when there is time for a half dozen? Many other insects, which can find time for but a single generation in the North, produce two or three in the South. Why not Malacosma? Why this neglect of opportunity? Is it that the insect is, geologically speaking, a recent arrival from the North and has failed to change its habits?

Next to the Lepidoptera, the Hymenoptera are most conspicuous. The major part of the busy hum is due to the honey bees. This is their first good "feed" of the spring and they are making the most of it. The wild bee, Agepostenon (?) is here, a beautiful irridescent blue and green fellow, but a lazy profiteer, a parasite on more industrious bees in the matter of raising a family.

The bumble bees are here. Prof. Fattig reports four species: *Bombus fraternus, pennsylvanicus, impatiens,* and *separatus.* But few wasps are about as yet. The common Mud Dauber, *Polistes,* is here as everywhere and a number of Digger Wasps. Of the others I have identified only *Odynerus capra.*

Diptera, the two-winged flies, are the next most abundant group, particularly *Syrphidae.* Prof. Fattig, who paid especial attention to this group, took fourteen species on this date from the blossoms of the wild plum. His list, as far as identified, follows: *Eristalis tenax, E. dimidiatus, E. vinetarum, E. transversus, Helophilus latifrons, Allograpta obliqua, Syrphus americana, Tropidia quadrata, Syritta pipiens, Psilota buccata, Tem-*

nostoma sp., Melanostoma sp. There are a number of Blue-bottles and Green-bottles about, especially the little *Orthellia cornicini.* There are a few Tachinid Flies about too, the most common being *Archytas lateralis,* built on the plan of a Blue-bottle, but hairy.

Beetles do not seem to be particularly attracted to the wild plum. The common little Soldier Beetle or Firefly, *Chauliognathus marginatus,* is of course, here. From now to late November hardly a blossom will appear that will not be overrun with these. Here too is the adult of the Southern Corn Root Worm, the "Bud Worm" of the Carolinas and Georgia, *Diabrotica 12-punctata.* We Floridians reserve the name "Bud Worm" for the first generation of the Corn Ear Worm. The "Black Weevil" of corn, *Calandra oryzae,* is here too. I take some pretty little bronze colored Chrysomelids, *Monachus thoracicus,* and large numbers of a minute Chrysomelid and an equally small weevil as well as a *Bruchus.*

Neither are true bugs much in evidence. There is an occasional Stink Bug, Pentatomid, mostly *Euschistus servus* and *E. variolaris,* and a Capsid or two are met with. The Green Peach Aphid, *Myzus persicae,* is common and the minute predator *Triphleps insidiosus,* which is to be found in most blossoms, is here in small numbers feeding on plant lice and thrips.

ADDITIONS TO THE THYSANOPTERA OF FLORIDA—V

J. R. WATSON AND EVELYN OSBORN

29. *Haplothrips orlando,* n. sp.

FEMALE. Length 2 mm. Color, including the entire antennae, uniformly dark brown, with considerable reddish-brown hypodermal pigmentation.

Head nearly a third longer than wide, surface striated; cheeks slightly arched and converging posteriorly, roughened with minute elevations and set with a few hairs; post-ocular spines rather long and slender but pale. *Eyes* rather small, occupying little more than a third of the profile of the head. Posterior ocelli large, situated opposite the middle of the eyes and in contact with their margins, directed partly outward. Anterior ocellus directed forward. *Mouth-cone* shorter than its width at the base, scarcely reaching the middle of the prosternum, rounded. Antennae about 1.5 times as long as the head, segments unusually uniform in size, shape and color; hairs short and weak.

Prothorax but little more than half the length of the head, 2.5 times as wide as long, sides widely diverging posteriorly; posterior angles rounded, each bearing a medium-sized bristle on the posterior border and a shorter one in front of it; two minute bristles on the anterior border near the mid-

dle. *Legs* rather long, concolorous with the body; fore femora greatly enlarged; all femora with a small, stout anteriorly directed, triangular tooth at the apex within. Fore tarsi with a very large strong tooth within. This tooth is nearly as large as the rest of the tarsus.

Wings reaching abdominal segment 6 or 7; membrane clear, distinctly narrowed in the middle; 23 interlocated hairs on the margin of the fore pair.

Abdomen widest at the base of the first segment, thence rounding to the base of the rather large tube; no conspicuous bristles on the anterior segments, those on the posterior about as long as the tube but pale. Those at the end of the tube pale and slender of medium length, the longest over half the length of the tube.

Measurements: Head, length 0.3 mm., width 0.21 mm.; prothorax, length 0.17 mm., width, including coxae, 0.42 mm.; Pterothorax, width 0.45 mm.; abdomen, width 0.5 mm.; tube, length 0.19 mm., width at the base 0.07 mm., at the apex 0.038 mm. Antennal segments 1, 27; 2, 57; 3, 67; 4, 64; 5, 67; 6, 59; 7, 56; 8, 43 microns; total length 0.47 mm.

Described from a single female taken in sweeping shrubs in the "flat woods" near Orlando, Fla., Feb. 1919. It resembles *H. jonesii* Karny in size, color, antennae and the presence of the femoral teeth, but differs in numerous characters including the size of the spine on the fore tarsi, short mouth-cone, and absence of spines near the base of the femora below.

Type in the Experiment Station collection.

KEY TO THE NORTH AMERICAN SPECIES OF HAPLOTHRIPS

(Seville) (Anthrothrips *Uzel)*

I. Post-ocular spines wanting. Antennae almost uniformly brown except segment 3 and base of 4 which are light brown.
H. statices Haliday *(Anthothrips niger* Osborn)

II. Post-ocular bristles well developed.
a. Post-ocular bristles and most of those of the thorax knobbed.
b. Sides of the head set with minute spines, surface roughened; fore tarsus with a large tooth; 10 to 12 accessory hairs on the fore wing ..... *H. flavipes* Jones.
bb. Sides of the head with a few inconspicuous bristles.
c. Head faintly sculptured; no accessory bristles on fore wing; tibiae brown .... *H.* (?) *Bellus* Hood & Willlams.
cc. Head faintly striated; 7 accessory bristles on fore wing. ..... *H. dozieri* (Watson.)
ccc. Head almost free of sculpture; 3 or 4 accessory bristles on fore wing; tibiae pale yellow.
H. (?) *tibialis* Hood.

aa. Post-ocular bristles not knobbed.
Apex of femora with small anteriorly directed tooth within.
c. Antennae uniformly dark brown; terminal bristles shorter than the tube.
d. Tarsal spine short; width of prothorax less than 2 times the length. *H. jonesii* Karny *(A. nigricornis* Jones.)
dd. Tarsal spine very large; width of prothorax 2.5 times its length ..... *H. orlando* n. sp.

cc. Antennal segment 3 yellowish brown; terminal bristles longer than the tube.
d. Body length 1.8 mm.; antennae nearly concolorous with the body; tube nearly as wide at the apex as at the base .....*H. haplophilus* Hood.
dd. Body length 1.3 mm.; antennae much lighter than the body; tube about 1.5 as wide at the base as at apex .....*H. floridensis* (Watson.)

bb. Apex of femora toothless.
c. Width of tube at base more than 1.5 width at apex.
d. Wings clear, except a brownish area at base.
e. Antennae twice as long as head, usual sense cones present on segment 3.
f. Bristles on the anterior and posterior margins of prothorax about equal.
g. Antennal segments 3-6 bright yellow, abdominal spines (except those of the tube) slender and faint; prothorax about 1.5 times as wide as long.
H. verbasci (Osborn.)
gg. Antennal segments 3-6 light brown or yellow; abdominal spines stout and conspicuous; prothorax about twice as wide as long.
H. variabilis (Crawford.)
ff. Bristles of the anterior margin of the prothorax much shorter; forewings without interlocated hairs.
H. malifloris Hood.
ee. Antennae less than twice as long as head, no sense cones on inner surface of segment 3; bristles of anterior margin of prothorax greatly reduced.
f. Only antennal segment 3 yellow, a little shorter than 2; wings with 7 interlocated hairs; prothorax less than twice as long as wide.
H. graminis Hood.
ff. Antennal segments 3-6 yellow, 3 longer than 2; 9 interlocated hairs on wing; prothorax more than twice as wide as long....*H. faurei* Hood.
fff. Antennal segment 3 yellow, 4-6 progressively darker, segment 3 distinctly shorter than 2. (Panama)
H. humilis Hood.

dd. Wings clouded with gray, a nearly black area at the base and a paler one just before the middle, 2 interlocated hairs.
H. nubilipennis Hood.

cc. Width of the tube at the base less than 1.5 width at apex. (W. I.).....*H. gowdeyi* Hood.

No. 29 of our previous list (Buggist, Vol. I, No. 4, p. 71) *Anthothrips niger* Osborn, is synonymous with No. 45 *Haplothrips statices* Haliday. We have therefore given the new species No. 29.

56. *Frankliniella insularis* (Franklin). Miami, Mar. 1919.
Collected by A. C. Mason on flowers of *Citrus* and *Carissa grandiflora*. This thrips is widespread thru Mexico and the West Indies.

PERSONALS

Thomas H. Jones of the Bureau of Entomology, Division of Truck and Garden Crops, stationed in Louisiana, is in the state for a few weeks in connection with extension work on the melon aphis.

Mr. Fiske of the Columbia, S. C., laboratory of the U. S. Bureau of Entomology was a recent visitor at Gainesville in connection with some work on corn insects that is being carried on in cooperation with the Experiment Station. Mr. Fiske is a classmate of Mr. Geo. B. Merrill of the Plant Board.

Mr. Merrill has been passing the cigars—a young entomologist.

Miss Evelyn Osborn is a temporary assistant in the Department of Entomology of the Experiment Station. Miss Osborn is a daughter of Prof. Herbert Osborn, the noted entomologist of Ohio State University.

Farmer's Bulletin 1029, "Conserving Corn from Weevils in the Gulf Coast States", by E. A. Back, contains some data and photographs obtained by Mr. R. L. Clute here in Florida last summer.

W. S. Blatchley in Canadian Entomologist, Vol. LI, No. 3, p. 65, treats of "Some New or Scarce Coleoptera from Florida". We are able to add a new locality and two host plants to one of the species he mentions. *Tachygonus lecontei* Gyll has been taken at Gainesville from holly and prickly ash. Dec. 2 and April 18.

The Business Manager of THE BUGGIST spent ten days during last February assisting in the Better Fruit Campaign in Florida.

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PROF. J. R. WATSON.....Editor
DR. E. W. BERGER.....Business Manager
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According to the daily papers the city of West Palm Beach has undertaken a systematic campaign against mosquitoes. We trust that the movement is backed by trained men and will be such a success as to serve as an object lesson to the rest of the state. At least by this highly sensible and progressive action that city has been placed in a class by herself among Florida cities. May her tribe increase. May her hotels fill with tourists and her real estate men flourish as her own bay trees.

The Entomologist of the Experiment Station was recently called to Florence Villa to advise in regard to combatting mosquitoes.

Our most enthusiastic bee man while out on a pleasure ride on a recent Sunday afternoon espied a swarm in a tall tree. Seizing his wife's linen duster he climbed the tree, wrapped up the colony and carried it safely home. Wonder what his go-to-meeting (?) trousers look like?

THE CUBAN CITRUS THRIPS IN FLORIDA

In a collection of thrips recently received from Miami from Mr. A. C. Mason are numerous specimens of *Frankliniella insularis* (Franklin). This is by no means a welcome addition to the "bugs" of Florida. Not much is recorded in economic literature concerning this insect but from what we have been able to gather from men who have worked in Cuban groves it would seem that it is a much more serious pest than is our Florida Flower Thrips and that spraying for it is a more or less regular procedure in the Isle of Pines. An effort will be made to discover how widespread this insect is in Florida and a close watch will be kept on its comings and goings.

REPORTS OF MEETINGS

Nov. 25, 1918. Under "Timely Notes" Professor Watson exhibited a collection of several hundred moths of the Velvet Bean Caterpillar *(Anticarsia gemmatilis)* which shows unusual variation in color and markings. Professor Watson also reported severe attacks on citrus and avocado fruits by the cotton stainer at Miami.

In the first paper of the evening, "The Sweet-potato Root Weevil *(Cylas formicarius)* Situation", Mr. Bragdon gave an account of the attempt to eradicate this pest from Baker County. This comparatively small infested area was selected for three reasons: (1) isolation; (2) absence of wild host-plants of the weevil; (3) climate, all potato vines being killed by cold during the winter.——The Bureau of Ent. U. S. D. A. has established a laboratory at Macclenny which will attend primarily to the eradication work. The Plant Board's share in the work consists principally in maintaining the necessary quarantines. One or two growers who cooperated from the very beginning have apparently already cleared their farms of weevils. The method of procedure is, in brief: (1) to collect and destroy the last vestige of potatoes at digging time; (2) to sort and destroy all infested potatoes at digging time; (3) to dispose of all potatoes by February in order to starve out the weevils; (4) to plant vines free of weevils and to plant late; (5) to locate this year's fields as far as possible from those of last year.——Mr. Bragdon exhibited a map showing the infested regions—Texas, Louisiana, Alabama (Mobile Co.), and Georgia. Another map showed a narrow infested strip, five to eight miles wide, bordering the coast from Tarpon Springs on the west to Ormond on the east coast. Above those points on each side there is a break in the distribution of the sea-side morning-glory, the native host-plant of the weevil. This apparently accounts for the absence of the weevils on the beaches north of those points.

The second paper of the evening was by Dr. Berger, who gave a brief account of the larvae, pupae and adults and showed specimens of one of the Soldier Flies *(Stratiomyidae)*. These dirty gray maggots and dark brown leathery, active, pupae were found living in the droppings of chimney swallows that had accumulated to the volume of about half a hushel on a ledge inside the chimney just above the fireplace. The droppings, apparently made up mostly of insect remains, were quite alive with several

sizes of these larvae and pupae. The species was identified by Prof. Watson as *Hermetia illudens* SC, a common scavenger in rotting potatoes and insects. The adult Stratiomydae are reported as frequenting flowers, but in the larval stages as living in decaying vegetable matter.

Both papers were discussed by those present.

Dec. 30. Under "Timely Notes" Prof. Watson directed attention to the scarcity during the past fall of a group of tropical insects which extend into the southern U. S. including the Zebra Butterfly *(Heliconius charithonia)*, the Bella Moth *(Utethesia bella)*, and the Gulf Fritillary *(Agraulis vanillae,* and *Anticarsia)*. He is of the opinion that the severe winter of 1917-18 may be the cause of the scarcity of these tropical species.

Mr. Stirling stated that the Cotton Stainer was causing unprecedented injury to citrus fruit this fall and winter, especially in Polk and DeSoto Counties.

The paper of the evening, "Modern Bee Keeping", by Frank Stirling (published in THE BUGGIST, Vol. II, No. 3), was next read and discussed.

Jan. 27, 1919. H. S. Davis in the chair. The annual election of officers resulted: President, F. M. O'Byrne; vice president, Geo. B. Merrill; secretary-treasurer, P. W. Fattig; executive committee, Dr. J. H. Montgomery; editor of THE FLORIDA BUGGIST, J. R. Watson; associate editor, Wilmon Newell; business manager, E. W. Berger.

Under "Timely Notes" Mr. Frank Stirling reported finding two specimens of the Palmetto Weevil *(Rhyncophorus cruentatus)* in a bud of cabbage palmetto which he cut for eating while on a hunting trip on the Suwannee River a few miles south of Vista, in Levy County. Prof. Watson reported finding the Big-legged and the Leaf-footed Plant-bugs *(Acanthocephalus femeratus* and *Leptoglossus phyllopus)* hibernating in large numbers in the large thistles so common in pastures. These thistles should be cut during the winter.——Mr. Bragdon reported finding *Euscepes porcellus* on moonvine on the shores of Lake Okeechobee and on seaside morning-glory at Ft. Pierce; and the Sweet-potato Root Weevil on sweet-potatoes at Titusville.

Mr. R. L. Warner read the paper of the evening on "Side Lights on the Black Fly in Cuba". Mr. Warner served from Feb. to Aug. 1918 in Cuba in an advisory capacity to the Cubans in their efforts to control this aleurodid *(Aleurocanthus woglumi)*.

REPORT OF THE SECRETARY-TREASURER FOR 1918

RECEIPTS

Balance received from previous Secretary-Treasurer	$16.95
Dues received to January 27, 1919	46.50
Total receipts	$63.45

EXPENDITURES

100 Notice-Dues Cards, Pepper Printing Co.	$ 1.50
Stamps	1.25
3 Rubber Stamps, Balbin Stamp Co., Tampa	.87
125 Notices of dues due	2.35
The Florida Buggist, printing, Mar., June, and Sept. Nos.	56.35
Total expenditures	$62.32
Balance on hand	1.13
	$63.45

E. W. BERGER, Sec'y-Treasurer.

March 3, 1919. The Society was called to order by the President with the following members present: E. W. Berger, F. M. O'Byrne, G. B. Merrill, J. R. Watson, P. H. Rolfs, Frank Stirling, J. E. Graf, E. K. Bynum, J. Chaffin and H. S. Davis. Visitors present were Miss Evelyn Osborn and C. H. Popenoe of the Bureau of Entomology, Washington. The following were elected to membership: Dr. Roger C. Smith, U. S. Ent. Lab., Charlottesville, Va., and E. K. Bynum, State Plant Board, Gainesville, Fla. The resignation of P. W. Fattig as secretary-treasurer was read and accepted and Dr. H. S. Davis was elected to succeed him.

Mr. G. B. Merrill then read a paper on "Some New Florida Scales". Since the publication of the paper on "Some Florida Scale Insects" by C. E. Wilson in the Quarterly Bulletin, State Plant Board, Oct. 1917, 11 additional species have been found in

the state. The more important facts regarding each species were briefly summarized. (This paper will be published in the Quarterly Bulletin State Plant Board.)

This was followed by a paper on "Mealy-bugs" by J. Chaffin. Less work has been done on these insects than on any other group of the Coccidae. About 76 species have been described—43 of them from California. Practically no work has been done on these insects in Florida and there are probably fully as many species in the state as in California. Five species have already been collected from citrus.

Mar. 22, 1919. In place of the regular March meeting a smoker for Mr. George Compere, Plant Quarantine Inspector of California, was held. The following members were present: F. M. O'Byrne, E. W. Berger, Wilmon Newell, O. T. Stone, J. C. Goodwin, Frank Stirling, J. H. Montgomery, A. C. Brown, J. Chaffin, G. B. Merrill and H. S. Davis. There were present as guests George Compere, J. C. Holton, J. R. Fulk, Jno. Spencer, J. J. Grimm, C. H. Willoughby and Mr. F. S. Dresskell of Chicago. The regular order of business was dispensed with and Mr. Compere gave an informal and exceedingly interesting address on "Parasitic Insects". This consisted largely of personal reminiscences of his work in introducing insect parasites into California and Australia, following the introduction of the Vedalia, or Australian Lady-beetle, to combat the Cottony Cushion Scale in California in 1888.

Roughly speaking, a species is a collection of individuals which resemble each other as closely as the offspring of a single parent.—Comstock.

A genus is a group of species. Thus all the species of pine trees belong to the genus *Pinus*.

Observation, record, generalization, experiment, verification—these are the processes necessary for the mastery of this subject.—Forbes.

A "BAT" FOR A "RACET WILD ANIMAL"

The following, contributed by a farmer on the shores of Lake Okeechobee, may prove valuable to those similarly afflicted: "dear sir,

Please Regard Rabbits & Rats Poisoning How is To Best Uising Bats (baits) For This Racet Wild Animal Eated All Plant Up and Digging All Seed Out Peanuts Corn Broom Corn Just Think Digging Out Corn Plant From Two To Three Weeks Old. * * * * *

Since This Rats Eated Seed Bad I Go Over A Bout 30 Acre Two Week Head Before Plant Corn With Poison Bats Paris Grien and Arsenata Of Lead Arsenic Zing Together Corn Meal And Indian Pomckins Coked And Hed One Pound Sugar & One Quart Surp To One Peck Poison Bats Distributed Two Time A Week And I Did Seved 20 Acre Corn. * * *

Yours Veriy Truly,

_____ _____."

WANTED—To exchange insects of Michigan, preferably Lepidoptera, for insects from Florida. W. C. Platt, 625 Wallace Ave., Kalamazoo, Mich.

STRATEGUS WANTED—Am making a special study of this genus, of the Scarabeidae, and should be very glad to receive Florida specimens, especially of the rarer specie. Will exchange or pay cash. Address W. Knaus, McPherson, Kansas.

Insects are eminently instructive, though their automatic behavior is often so remarkably successful as to appear rational, instead of purely instinctive.—Falson.

Perhaps, after all, it was just a happy thought that prompted the wasp to grab a pebble in its jaws and with it tamp the earth over its burrow.—E. W. B.

WANTED—Diurnal Lepidoptera of Florida in exchange for desirable western species. Over 3000 butterflies on hand for exchanges. Dr. John A. Comstock, Southwest Museum, Los Angeles, Calif.

WANTED—To buy or exchange for northern species, southern Chrysopidae (Lace-winged-flies). All stages desired, especially material for biological studies. Will determine specimens. Dr. Roger C. Smith, U. S. Ent. Lab., Charlottesville, Va.

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